

12th September 2012

RFI Global Services Ltd
Pavillion A
Ashwood Business Park
Basingstoke
Hampshire
RG23 8BG

RE: Band 12 V6 eNode B FCC ID: PKTNODEBAQQ MPE Calculation.

To Whom It May Concern,

The General Dynamics Broadband Band 12 V6 eNode B is considered to be fixed equipment and intended for operation with separation distances greater than 20cm between the user and the equipment, therefore the RF Exposure performance can be assessed by a Maximum Permissible Exposure (MPE) calculation as described in OET Bulletin 65 page 19 using the limits defined in Part 1.1310 Table 1B for the General Population/Uncontrolled Exposure category.

The General Dynamics Broadband V6 eNode B uses frequency division duplex (FDD) technology in normal operation with a duty cycle of 100%, therefore source based averaging is not applied in the MPE calculation.

MPE Distance Calculation	5MHz Channel	
Antenna Gain	20	dBi
Line Loss	0	dB
Antenna Gain Ratio	100	
V6 eNode B Tx Output Power (per branch)	40	dBm
Upper Power Tolerance (per branch)	2	dB
Number of Transmitter Branches	2	
Total Output Power - all branches	31697.86	mW
Maximum EIRP - all branches	3169786.38	mW
Frequency	699	MHz
MPE Limit from 1.1310	0.466	mw/cm ²
Un-controlled/General Public Limit		
Minimum Distance to meet MPE Limit	735.73	cm
(100% Duty Cycle)	289.43	inches

Table 1: 100% Duty Cycle Calculation

The calculations above show the General Dynamics Broadband Band 12 V6 eNode B complies with the un-controlled /General Public limit of 0.466mW/cm² at a minimum distance of 7.36m for operation using 5MHz channels.

Yours Faithfully



P Warburg
Principal Engineer
General Dynamics Broadband.